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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,847	07/05/2001	Gek-Kee Sim	2618-102-PUS	5081
22442	7590	11/15/2006	EXAMINER	
SHERIDAN ROSS PC 1560 BROADWAY SUITE 1200 DENVER, CO 80202			SKELDING, ZACHARY S	
			ART UNIT	PAPER NUMBER
			1644	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/744,847

Applicant(s)

SIM ET AL.

Examiner

Zachary Skelding

Art Unit

1644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 69-78 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 69-78 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

1. Applicant's Election, with traverse, and amendment to the claims filed August 30, 2006 is acknowledged.

Claims 1-68 have been canceled.

Claims 69-78 have been added.

Claims 69-78 *are pending*.

2. Applicant has elected Group II, drawn to nucleic acid sequences and the particular nucleic acid SEQ ID NO: 1, with traverse.

Applicant argues that SEQ ID NOs: 1, 2, 3, 28, 30 and 50 be rejoined and examined as one group since SEQ ID NO: 50 is an oligonucleotide encompassed by the other sequences and SEQ ID NOs: 1 and 28 differ only in their C terminal regions. Applicant's argument is found persuasive with respect to these sequences being part of a single group, however, as pointed out below these sequences are subject to an election of species.

Applicant further requests that SEQ ID NOs: 60-62 be rejoined and examined with SEQ ID NOs: 1, 2, 3, 28, 30 and 50 because according to applicants SEQ ID NOs: 60-62 are "substantially identical" to SEQ ID NOs: 2 and 29.

Applicant's argument has been considered but is not found persuasive.

The alignment of SEQ ID NOs: 2, 29 and 60-62 provided by Applicant shows that the T-cell receptor V $\alpha$  chains have large segments of polypeptide sequence that are unique one polypeptide to the other. Thus (SEQ ID NOs: 2, 29) and (SEQ ID NOs: 60-62) represent patentably distinct products, with different sequences and structures and with distinct physical and functional characteristics. As such, examination of these species would require different searches in the scientific literature. A search for (SEQ ID NOs: 1, 2, 3, 28, 30 and 50) **AND** (SEQ ID NO: 60-62) would be further burdensome, because, as in the instant case, the nucleic acid sequences are claimed not only as nucleic acid sequences, *per se*, but also by the sequence of the protein encoded thereby, and requires a search of the corresponding region of the nucleic acid as well as a 'reverse translation' search of the corresponding region of the protein, such that each individual sequence requires two sequence searches which are not required for any of the other sequences.

Accordingly, restriction between claims to (SEQ ID NOs: 1, 2, 3, 28, 30 and 50) **OR** (SEQ ID NO: 60-62) is proper.

In light of applicant's traversal, and upon reconsideration, the previous Restriction Requirement has been **VACATED**.

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The following new Restriction Requirement and election of species requirement is set forth. The Examiner apologizes for any inconvenience to Applicant in this matter.

3. It is noted that new claim 74 recites SEQ ID NO:5, however this sequence does not appear to be related to any of the other claimed sequences and it also does not appear in any of the other claims. Indeed, it seems likely applicant made an inadvertent error in claiming this sequence in that they meant to claim SEQ ID NO:50 not SEQ ID NO:5. Thus, for the purposes of examination, claim 74 will be restricted as if SEQ ID NO:50 not SEQ ID NO:5 were being claimed. If SEQ ID NO:5 is related to the other claimed sequences, applicant is invited to point this out and SEQ ID NO:5 will be rejoined with the appropriate group or a supplemental restriction requirement will be issued.

***Restriction Requirement***

4. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.
5. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims will be restricted.

I. Claims 69-78, drawn to the nucleic acids of SEQ ID NOs: 1, 3, 28, 30 and 50.

II. Claims 71, 73, 75 and 76, drawn to the nucleic acids of SEQ ID NOs: 60-62.

6. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The invention of Group I, for example, an isolated nucleic acid comprising SEQ ID NO: 50, was found to have no special technical feature that defined the contribution over the prior art of Wedderburn *et al.* Proc. Natl. Acad. Sci, 1993; 90: 8214-8218. (see entire document, cited in the previous Office Action).

Wedderburn (Accession No. Z23040) teaches a nucleic acid molecule comprising SEQ ID No: 50.

Since Applicant's inventions do not contribute a special technical feature when viewed over the prior art they do not have a single general inventive concept and so lack unity of invention.

***Species Election***

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7. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.
8. If applicant elects **Group I** applicant is required to elect one specific genus of nucleic acid molecules to be examined on the merits selected from

A. SEQ ID NOs: 1, 3 and 50, **OR**

B. SEQ ID NOs: 28, 30 and 50

These **nucleic acids** are patentably distinct because they comprise patentably distinct molecules that have structural, and/or physiochemical differences, and/or do not share a common structure that is disclosed to be essential for common utility. Further, examination of these species would require different searches in the scientific literature. As such, it would be burdensome to search these species together.

*If applicant believes these species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case.*

Applicant is required under 35 USC 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held allowable.

9. Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, **and a listing of all claims readable thereon, including any claims subsequently added.** An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 C.F.R. § 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. M.P.E.P. § 809.02(a).

10. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103 of the other invention.
11. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary Skelding whose telephone number is 571-272-9033. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on 571-272-0841. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Zachary Skelding, Ph.D.  
Patent Examiner  
November 11, 2006

  
PHILLIP GAMBEL, PH.D.  
PRIMARY EXAMINER  
R 1600  
11/11/06